

## Standard Accelerometer

## KS98B10

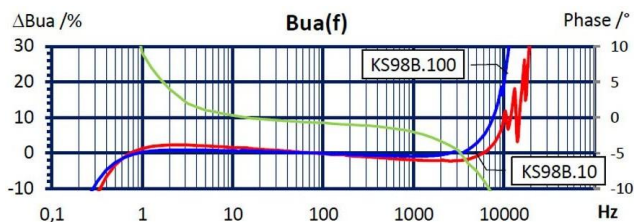
### Properties

- Well suited for modal and structural analysis
- Wide dynamic range
- Low amplitude and phase error
- Clip mounting in three directions
- Includes electronic data sheet (TEDS; IEEE 1451.4; Template 25 w. DS2431)
- Two sensitivity versions (10 and 100 mV/g)

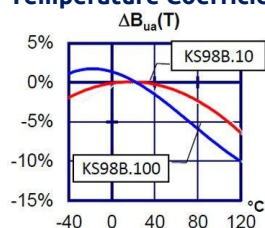


Piezo design	Shear design	
Output	IEPE	
Voltage sensitivity	10	mV/g
Sensitivity tolerance	20	%
Measurement range, pos./neg.	500	g
Destruction limit	8000	g
Transverse sensitivity	<5	%
Lower frequency limit (3 dB)	0,2	Hz
Upper frequency limit (3 dB)	16000	Hz
Lower frequency limit (10 %)	0,4	Hz
Upper frequency limit (10 %)	10000	Hz
Lower frequency limit (5 %)	0,6	Hz
Upper frequency limit (5 %)	8000	Hz
Resonant frequency	>40	kHz
Resonance amplitude	25	dB
Constant current supply	2 - 20	mA
Bias voltage at 4 mA	12 - 14,5	V
Output impedance	<100	$\Omega$
Residual noise; wide band; RMS	<3000 (0,5 - 20000 Hz)	$\mu\text{g}$
Noise density 1 Hz	400	$\mu\text{g}/\sqrt{\text{Hz}}$
Noise density 10 Hz	100	$\mu\text{g}/\sqrt{\text{Hz}}$
Noise density 100 Hz	30	$\mu\text{g}/\sqrt{\text{Hz}}$
Noise density 1000 Hz	15	$\mu\text{g}/\sqrt{\text{Hz}}$
Operating temperature range	-40 - 120	$^{\circ}\text{C}$
Temperature coefficient of voltage sensitivity	0,03 (<0 $^{\circ}\text{C}$ )	%/K
	0 (0 - 40 $^{\circ}\text{C}$ )	%/K
	-0,03 (40 - 80 $^{\circ}\text{C}$ )	%/K
	-0,06 (>80 $^{\circ}\text{C}$ )	%/K
Temperature transient sensitivity	1,5	$\text{m/s}^2/\text{K}$
Magnetic field sensitivity	4,5	$\text{m/s}^2/\text{T}$
Weight without cable	3	g
Case material	Aluminum/stainless steel	
Connector direction	radial	
Connector	UNF10-32	
Mounting	Plastic clip 1407; adhesive	

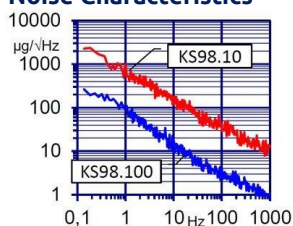
## Typical Frequency Response



## Temperature Coefficient



## Noise Characteristics



## Connection Accessories

- 009-UNF-UNF-1,5: Low-noise cable; 1,5 m; UNF 10-32 to UNF 10-32; 120 °C; D2,1
- 009-UNF-BNC-1,5: Low-noise cable; 1,5 m; UNF 10-32 to BNC; 120 °C; D2,1
- 010-UNF-BNC-5: Low-noise cable; 5 m; UNF 10-32 to BNC; 120 °C; D2,1
- 010-UNF-BNC-10: Low-noise cable; 10 m; UNF 10-32 to BNC; 120 °C; D2,1
- 016: Coupler UNF 10-32 (female) to UNF 10-32 (female)
- 017: Plug adapter UNF10-32 (female) to BNC (male)
- 117: Plug adapter UNF10-32 (female) to BNC (female)
- 025: Plug adapter UNF10-32 (female) to TNC (male)

## Mounting Accessories

- 1407: Plastics mounting clip
- 038: Instant adhesive

**Notice:** The standard delivery includes an individual data sheet.  
 This is a non-accredited measurement/calibration and consequently not covered by EA MLA.  
 On request, we offer a DIN EN ISO/IEC 17025:2018 accredited calibration of the measurand acceleration in the measuring range 0.1 m/s<sup>2</sup> to 200 m/s<sup>2</sup>.



## Standard Accelerometer

## KS98B100

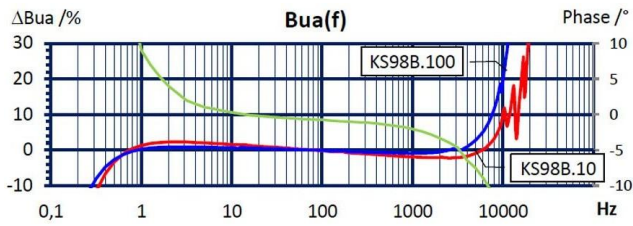
### Properties

- Well suited for modal and structural analysis
- Wide dynamic range
- Low amplitude and phase error
- Clip mounting in 3 directions
- Includes electronic data sheet (TEDS; IEEE 1451.4; Template 25 w. DS2431)
- Two sensitivity versions (10 and 100 mV/g)

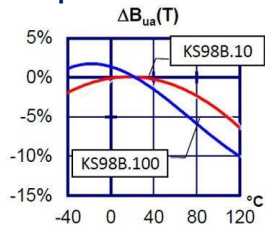


Piezo design	Shear design	
Output	IEPE	
Voltage sensitivity	100	mV/g
Sensitivity tolerance	20	%
Measurement range, pos./neg.	60	g
Destruction limit	8000	g
Transverse sensitivity	<5	%
Lower frequency limit (3 dB)	0,15	Hz
Upper frequency limit (3 dB)	11000	Hz
Lower frequency limit (10 %)	0,3	Hz
Upper frequency limit (10 %)	7500	Hz
Lower frequency limit (5 %)	0,45	Hz
Upper frequency limit (5 %)	5000	Hz
Resonant frequency	>24	kHz
Resonance amplitude	25	dB
Constant current supply	2 - 20	mA
Bias voltage at 4 mA	12 - 14,5	V
Output impedance	<100	$\Omega$
Residual noise; wide band; RMS	<400 (0,5 - 20000 Hz)	$\mu\text{g}$
Noise density 1 Hz	100	$\mu\text{g}/\sqrt{\text{Hz}}$
Noise density 10 Hz	15	$\mu\text{g}/\sqrt{\text{Hz}}$
Noise density 100 Hz	4	$\mu\text{g}/\sqrt{\text{Hz}}$
Noise density 1000 Hz	1	$\mu\text{g}/\sqrt{\text{Hz}}$
Operating temperature range	-40 - 100	$^{\circ}\text{C}$
Temperature coefficient of voltage sensitivity	-0,03 (<0 $^{\circ}\text{C}$ )	%/K
	-0,05 (0 - 40 $^{\circ}\text{C}$ )	%/K
	-0,08 (40 - 80 $^{\circ}\text{C}$ )	%/K
	-0,11 (>80 $^{\circ}\text{C}$ )	%/K
Temperature transient sensitivity	0,3	$\text{m/s}^2/\text{K}$
Magnetic field sensitivity	0,5	$\text{m/s}^2/\text{T}$
Weight without cable	3.8	g
Case material	Aluminum/stainless steel	
Connector direction	radial	
Connector	UNF10-32	
Mounting	Plastic clip 1407; adhesive	

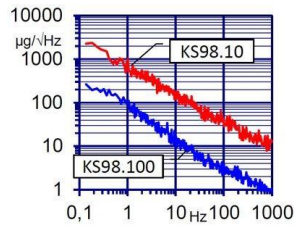
## Typical Frequency Response



## Temperature Coefficient



## Noise Characteristics



## Connection Accessories

- 009-UNF-UNF-1,5: Low-noise cable; 1,5 m; UNF 10-32 to UNF 10-32; 120 °C; D2,1
- 009-UNF-BNC-1,5: Low-noise cable; 1,5 m; UNF 10-32 to BNC; 120 °C; D2,1
- 010-UNF-BNC-5: Low-noise cable; 5 m; UNF 10-32 to BNC; 120 °C; D2,1
- 010-UNF-BNC-10: Low-noise cable; 10 m; UNF 10-32 to BNC; 120 °C; D2,1
- 016: Coupler UNF 10-32 (female) to UNF 10-32 (female)
- 017: Plug adapter UNF10-32 (female) to BNC (male)
- 117: Plug adapter UNF10-32 (female) to BNC (female)
- 025: Plug adapter UNF10-32 (female) to TNC (male)

## Mounting Accessories

- 1407: Plastics mounting clip
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